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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,351	02/10/2005	Allan L Schaefer	23-02	5654
23713	7590	07/16/2007		
GREENLEE WINNER AND SULLIVAN P C			EXAMINER	
4875 PEARL EAST CIRCLE				AGRAWAL, RITESH
SUITE 200			ART UNIT	PAPER NUMBER
BOULDER, CO 80301			1631	
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			07/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,351	SCHAEFER ET AL.	
	Examiner	Art Unit	
	Ritesh Agrawal	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 April 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-47 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 09 September 2004 and 24 February 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/10/05.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 1-20) in the reply filed on 4/24/07 is acknowledged. The traversal is on the ground(s) that the groups share a special technical feature of the analysis of a velvet antler through the acquisition of an infrared thermographic image where the image is represented as an array of pixels providing temperature data. Applicants' arguments are found persuasive so the restriction requirement is withdrawn.

Claims 1-47 are pending and are under consideration.

Information Disclosure Statement

2. The Information Disclosure Statement filed 2/10/05 has been entered and considered. Initialed copies of the form PTO-1449 are enclosed with this action.

Drawings

3. The drawings are objected to because figures 2, 8, and 9 of what appears to be replacement drawings filed 2/24/05 are not discernible. Furthermore, although these appear to be replacement drawings, the replacements sheets are not labeled as such. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an

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amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-34 and 42-47 are drawn to a process. A statutory process must include a step of a physical transformation, or produce a useful, concrete, and tangible result (State Street Bank & Trust Co. v. Signature Financial Group Inc. CAFC 47 USPQ2d 1596 (1998), AT&T Corp. v. Excel Communications Inc. (CAFC 50 USPQ2d 1447 (1999)). The instant claims do not result in a physical transformation, thus the Examiner must determine if the instant claims include a useful, concrete, and tangible result.

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As noted in State Street Bank & Trust Co. v. Signature Financial Group Inc.

CAFC 47 USPQ2d 1596 (1998) below, the statutory category of the claimed subject matter is not relevant to a determination of whether the claimed subject matter produces a useful, concrete, and tangible result:

The question of whether a claim encompasses statutory subject matter should not focus on *which* of the four categories of subject matter a claim is directed to 9-- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See *In re Warmerdam*, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994). For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.

In determining if the claimed subject matter produces a useful, concrete, and tangible result, the Examiner must determine each standard individually. For a claim to be "useful," the claim must produce a result that is specific, and substantial. For a claim to be "concrete," the process must have a result that is reproducible. For a claim to be "tangible," the process must produce a real world result. Furthermore, the claim must be limited only to statutory embodiments.

With respect to claims 35-41, the placement of a non-statutory method in an apparatus does not provide for a statutory invention.

Claims 1-47 do not provide for inventions that produce a tangible result. A tangible result requires that the claim must set forth a practical application to produce a

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real-world result. This rejection could be overcome by amendment of the claims to recite that a result of the method is outputted to a display or a memory or another computer on a network, or to a user, or by including a physical transformation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-20, and 25-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the image" in lines 16, 18, 20, and 23. It is unclear if this refers to the image from a sample antler or from the test antler.

Claim 7 recites the limitation "the view of the image" in line 1. It is unclear if this refers to the view of the image of a sample antler or the test antler.

Claim 9 recites the limitation "the statistical measure" in line 1. It is unclear if this refers to the statistical measure for a sample antler or the test antler.

Claim 11 recites the limitations "the image" and "the antler" in line 1. It is unclear if these refer to a sample antler or the test antler.

Claim 12 recites the limitation "the image" and "the antler" in line 1. It is unclear if these refer to a sample antler or the test antler.

Claim 12 recites the limitation "and when subjected to a temperature change" in line 2. It is unclear whether the image or the antler is "subjected to a temperature change".

Claim 15 recites the limitation "the image" in line 2. It is unclear if this refers to an image from a sample antler or the test antler.

Claim 15 recites the limitation "the antler" in lines 2, 4, 5, 8, 9-10, and 14. It is unclear if these refer to a sample antler or the test antler.

Claim 15 recites the limitation "the same view" in line 5. It is unclear if this refers to the view used for a sample antler or the test antler.

Claim 15 recites the limitation "the temperature data" in line 7. It is unclear if this refers to "temperature data" from a sample antler or the test antler.

Claim 15 recites the limitation "the one or more sites of high calcification and low metabolic activity" in lines 13-14. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference in the claim or the claims from which it depends to sites of high calcification and low metabolic activity.

Claim 16 recites the limitation "the image" in line 2. It is unclear if this refers to an image from a sample antler or the test antler.

Claim 16 recites the limitation "the antler" in lines 2, 3, 4, 5, 6, 9-10, and 14. It is unclear if these refer to a sample antler or the test antler.

Claim 16 recites the limitation "the same view" in line 5. It is unclear if this refers to the view used for a sample antler or the test antler.

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Claim 16 recites the limitation "the temperature data" in line 7. It is unclear if this refers to "temperature data" from a sample antler or the test antler.

Claim 16 recites the limitation "the one or more sites of high calcification and low metabolic activity" in lines 13-14. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference in the claim or the claims from which it depends to sites of high calcification and low metabolic activity.

Claim 17 recites the limitation "the value of the composition characteristic" in lines 1-2. It is unclear if this refers to the known or unknown value of the composition characteristic.

Claim 17 recites the limitation "the antler" in lines 2 and 3-4. It is unclear if this refers to a sample antler or the test antler.

Claim 18 recites the limitation "the value of the composition characteristic" in lines 1-2. It is unclear if this refers to the known or unknown value of the composition characteristic.

Claim 20 recites the limitation "the antler" in lines 4-5. It is unclear if this refers to a sample antler or the test antler.

Claim 25 recites the limitation "the image" in line 1. It is unclear if this refers to the image from the test or known antler.

Claim 26 recites the limitation "the image" in line 8. It is unclear if this refers to the image from the tip or base of the antler or both.

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Claim 26 recites the limitation "at least one statistical measure" in line 12. It is unclear if this is calculated over all of the images (tip, base, and first and second time periods) or separately.

Claim 28 recites the limitation "the image" in line 1. It is unclear if this refers to the image from the tip or base of the antler and if this refers to image taken at the first or second time period.

Claims 29-30 recite the limitation "the statistical measure" in line 1. Given the indefiniteness of the term "statistical measure" in the independent claim 26, it is further unclear as to how the term is to be interpreted in these dependent claims.

Claims 31-32 recite the limitation "the image" in line 1. It is unclear if this refers to the image from the tip or base of the antler and if this refers to image taken at the first or second time period.

Claim 35 recites the limitation "the live animal" in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference in the claim to an animal.

Conclusion

6. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ritesh Agrawal whose telephone number is (571) 272-2906. The examiner can normally be reached on 8:30 AM - 5:00 PM M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on 571-272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ritesh Agrawal *AA*

John S. Brusca 3 July 2007

JOHN S. BRUSCA, PH.D
PRIMARY EXAMINER